

REMARKS

Claims 2-3, 5-9 and 13-19 are pending in the application. The application has been amended to cancel Claim 1, and many of the claims dependent upon claim 1. Claim 17 has been re-written in independent form, and new Claim 19 has been inserted. No new material in introduced by way of these amendments.

I. ALLOWABLE SUBJECT MATTER

No prior art rejection was lodged against Claim 17. This claim has been re-written in independent form, including all the limitations of the base claim, and is therefore believed to be allowable.

II. THE ANTICIPATION REJECTION OF CLAIMS 1-2

The examiner rejected claims 1-2 for being anticipated by Carter et al. (US 2002/0191928). Claim 1 is cancelled from the application above without prejudice. It is respectfully submitted that the subject matter of claim 2 is patentably distinct from Carter et al. for at least the reasons given below.

Claim 2 is directed to a novel arrangement in which a fibre laser in a first fibre core is pumped using an undoped second fibre core thereby providing more uniform pumping along the length of the waveguide and reducing noise and interference in the laser itself. The undoped core and the lasing core are coupled together, typically by evanescent coupling in a single cladding structure, thus providing a compact and robust package, having improved properties over prior art systems.

As noted in paragraph 3 of Carter, prior art fibre lasers are available in two types: one in which pump light is introduced to the core, and another in which pump light is introduced to the cladding layer surrounding the core. Carter et al. discloses a cladding pumped arrangement whereby only a single core exists, which is fed with pump light from its own cladding. Neither the second cladding layer (36), nor the particles or granules (40) of Carter are equivalent to the second core of the present invention.

The present invention claims a third and patentably distinct type of configuration, in which two separate cores are provided wherein pump light is distributed to one core via the other,

separate core. It is therefore considered that the subject matter independent Claim 2 and dependent claims 3, 5-9, 13-16 and 18-19 are novel over Carter.

III. TRAVERSE OF THE OBVIOUSNESS REJECTION OF CLAIMS 2-16

The Examiner additionally rejected independent Claim 2 under 35 USC 103(a) over Garman (US 4,955,685) in view of various other documents. Again this rejection is respectfully traversed.

It is not clear from the Action which portions of Garman the Examiner considers to correspond to the features of the presently claimed invention since it appears that references in paragraph 8 of the Action have been copied from paragraph 4 of the Action in error. Nevertheless, it is noted that all embodiments disclosed in Garman include only a single fibre core. With reference to Figure 3, it is noted that a single fibre core is shown within a cladding. The fibre core is pumped by a light source, with the core and the light source arranged at the respective foci of an elliptical reflector. Garman is silent as to the construction or implementation of the light source, and in fact notes that such an arrangement is bulky and unsuitable for many applications. Garman goes on to propose other single core embodiments employing concentric structures unlike that of the present application. The skilled person is therefore taught away from the feature of the present invention of providing two cores.

It is therefore considered that the subject matter of Claim 2 is not rendered obvious by Garman either alone, or in combination with any of the cited documents.

Claims 3, 5-19, 13-16 and 18-19 are considered non-obvious at least by virtue of their dependency upon Claim 2.

Applicant respectfully requests favorable re-examination and allowance of all pending application claims 2-3, 5-9 and 13-19.

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